



Installing PowerBook G4 Aluminum 17" 1.67 GHz (High-Res) PRAM Battery & USB Board

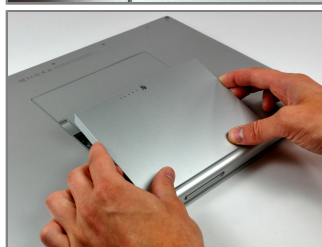
Tools used in this guide

- [Phillips #00 Screwdriver](#) (1)
- [Spudger](#) (1)
- [T8 Torx Screwdriver](#) (1)

Parts relevant to this guide

- [G4 Aluminum 17" 1.67 GHz \(HR\) PRAM Battery & USB Board](#) (1)

Replace your PRAM battery & USB board to preserve date and time after system shutdowns and to fix an unresponsive front USB port.



Step 1 - Battery

- Use your thumbs to push the two battery retaining tabs away from the battery.
- The battery should pop up enough to rotate it toward yourself and lift it out of the lower case.



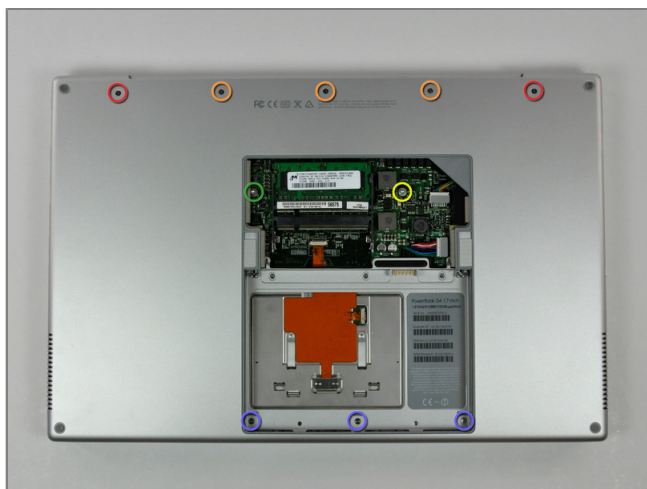
Step 2 - Memory Door

- Remove the three 2.3 mm Phillips screws securing the memory cover to the lower case.



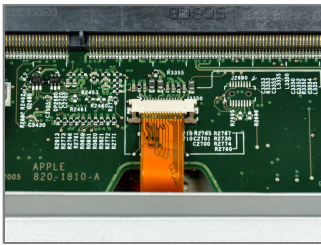
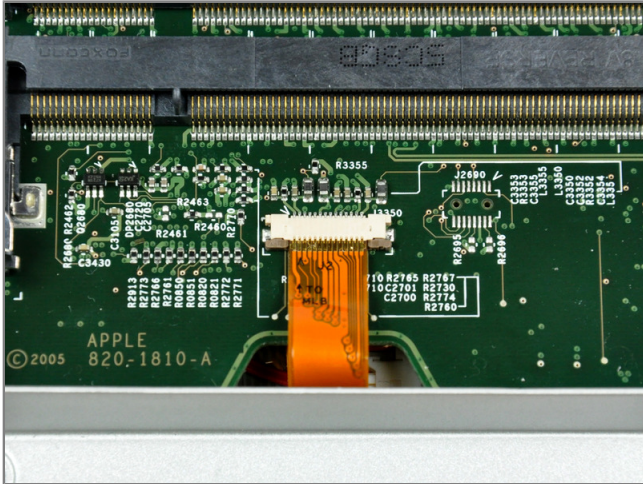
Step 3

- Lift the memory cover slightly and pull it toward yourself to remove it from the lower case.



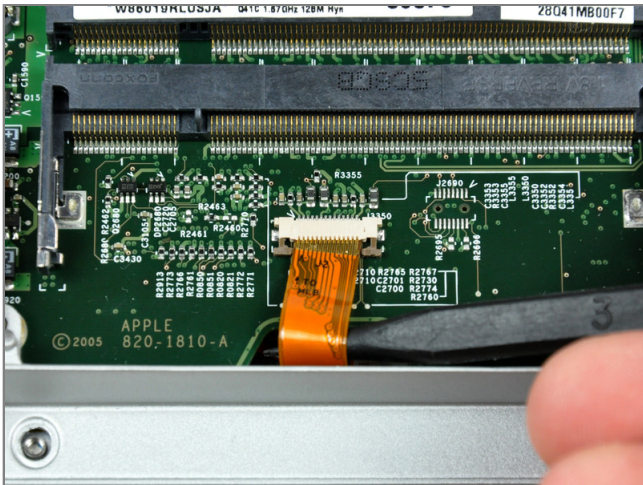
Step 4 - Upper Case

- Remove the following ten screws:
 - Two 14.7 mm shouldered Phillips.
 - Three 12.3 mm Phillips.
 - One 3.8 mm T8 Torx.
 - One 6.8 mm T8 Torx.
 - Three 1.3 mm Phillips.



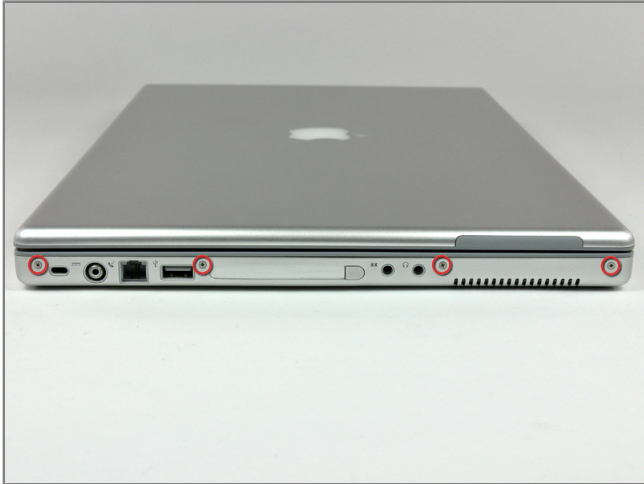
Step 5

- The ZIF cable is located underneath the bottom RAM slot. If your PowerBook has both RAM slots occupied, make sure to [remove](#) the RAM chip.
- Use your fingernails to separate the ZIF cable lock away from its socket.
- The ZIF cable lock will move about a millimeter away from the socket before it stops (see picture 2). **Do not** try to remove the ZIF cable lock.



Step 6

- Use the tip of a spudger to slide the trackpad ribbon cable out of its socket.



Step 7

- Remove the four 3.4 mm Phillips screws from the PC card side of the PowerBook.
- When replacing these screws, you must reinstall each screw in the correct order. Begin by installing the screw closest to the display hinge, and go out from there.



Step 8

- Remove the four 3.4 mm Phillips screws from the DVI connector side of the PowerBook.
- When replacing these screws, you must reinstall each screw in the correct order. Begin by installing the screw closest to the display hinge, and go out from there.
- During reassembly, make sure to reinstall the two screws on the right into their appropriate locations, and not the DVI port anchor holes.





Step 9

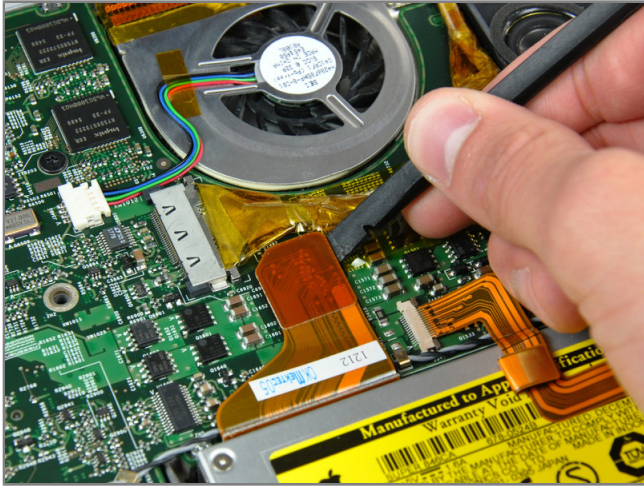
- Depress the display latch release button and open your display.



Step 10

- Starting near the display, lift the upper case straight up off the lower case, minding any cables that may get caught.





Step 11 - Optical Drive

- Use the flat end of a spudger to pry the optical drive cable connector up off the logic board.



Step 12

- Remove the following four screws securing the optical drive to the lower case:
 - Three 6.8 mm T8 Torx.
 - One 3.8 mm T8 Torx.



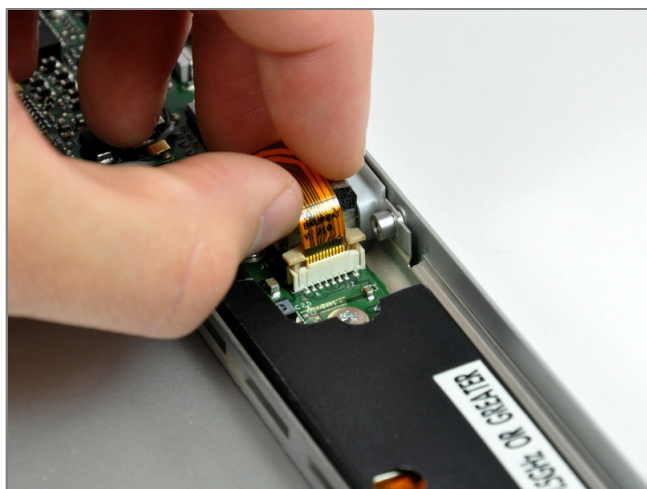
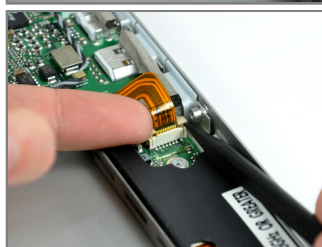
Step 13

- Lift the optical drive out of the lower case, being careful not to disturb the PRAM battery & USB board ribbon cable.



Step 14 - PRAM Battery & USB Board

- Use your fingernail and the tip of a spudger to raise the ZIF cable lock slightly up off its socket.
- The ZIF cable lock should raise about 1 mm and stop. **Do not** attempt to completely remove the ZIF cable lock.



Step 15

- Pull the ribbon cable straight up out of the ZIF socket.



Step 16

- Remove the two T8 Torx screws securing the PRAM battery & USB board to the lower case.
- Pull the board away from the side of the lower case to separate the USB socket from the bezel on the lower case.



Step 17

- Lift the board slightly out of the lower case and peel the small foam EMI gasket off the USB socket, then remove the PRAM battery & USB board from your powerbook.

To reassemble your device, follow these instructions in reverse order.

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